REMARKS/ARGUMENTS

Claims 1 – 31 are presented for examination. In the Office Action mailed on January 5, 2005, the Examiner rejected Claims 1 – 31 under 35 U.S.C. §102(e) as being anticipated by Sih, et al. (U.S. Patent no. 6,608,858 B1). The Applicant respectfully traverses the Examiner's rejections.

The Examiner states that Sih teaches a method comprising: obtaining control symbols from a first wireless signal (Sih, Fig. 1 and Col. 1, lines 28 – 43), the control symbols including pilot symbols and non-pilot symbols (Sih, Col. 3, lines 1 – 12) and using both the pilot symbols and the non-pilot symbols for frequency tracking of the first wireless signal. (Sih, Col. 3, lines 1 - 12, and Col. 4, lines 45 – 55) Moreover, the Examiner states that Sih inherently teaches using both the pilot symbols and the non-pilot symbols for frequency tracking because Sih teaches "generating (soft Handoff base stations) (soft decisions) for the non-pilot symbols and using the pilot symbols and the soft decisions for frequency tracking." The Applicant respectfully disagrees.

Sih teaches: "A subscriber unit can be tracking paths from different base station (in soft handoff), as well as time-delayed paths from the same base station. . . " (Sih, Col. 3, lines 21 – 23.) A "soft handoff" between base stations is a different technical endeavor that that of generating "soft decisions" for a decoder. A soft handoff is a process in which a moving subscriber unit transitions from the coverage of one base station to another base station by maintaining communication links with each. Soft handoffs may be contrasted to hard handoffs. A "hard handoff" is one where communication with one base station is terminated before communication link with a second base station has been established. Hence, soft handoff is a network oriented process which complies with guidelines established by various international standards bodies.

In contrast, a "soft decision" is a mathematical calculation used to aid a decoder in determining the value of a received bit. Soft decisions are probabilistic in nature. Since bit values may be corrupted during over the air transmission, a decoder may run various calculations to determine the most likely value of a received bit. As a simplistic example,

7

suppose that a decoder has received a bit value that is indeterminate. The decoder may determine that if "1" is used, the resulting symbol "010000" means nothing that is recognizable to it. However, if a "0" is used, the resulting symbol "000000" represents a known quantity. Hence, the decoder makes a soft decision that the received bit value was probably a "0".

The Applicant respectfully submits that Sih does not teach the feature of using soft decisions for frequency tracking. Claim 1 has been amended to include this feature (which was originally presented in Claim 2). Claim 2 has been cancelled. The rest of the claim set has been amended in an appropriate manner. Since the instant claims have been amended to include a feature not taught by Sih, the Applicant respectfully submits that Sih does not anticipate the instant claims.
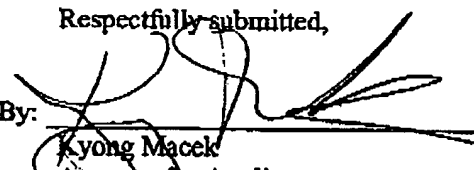
CONCLUSION

In light of amendments and arguments presented above, the Applicant respectfully submits that the instant claims are patentable. Accordingly, reconsideration and allowance of this Application is earnestly solicited. Should any issues remain unresolved, the Examiner is encouraged to telephone the undersigned at the number provided below.

Applicants therefore respectfully request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

Dated: June 6, 2005   By:

Kyong Macek
Attorney for Applicant
Registration No. 42,977

QUALCOMM Incorporated
5775 Morehouse Drive
San Diego, California 92121-2779
Telephone: (858) 845-8503
Facsimile: (858) 658-2502

8